**MEC 180 Engineering Materials**

**Central Piedmont Community College**

Course Description: This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre- and post-manufacturing processes, and material selection of ferrous and non-ferrous metals, plastics, composites, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications.

Note - The Mechatronics Re-Envisioned Grant’s primary focus was to digitize a portion of the Mechatronics curriculum to encourage student engagement and interaction with topics before they attend class.  This flipped classroom model is a dynamic way to introduce topics via interactive software so that students come to class prepared to dive deeper into the material, receive greater feedback and guidance from instructors, and have more time for hands-on labs and activities. This redesigned curriculum is one of many tools used by the instructor and is in no way a complete course.

Regional industry partners, as well as PMMI, Siemens, and OSHA guide industry standards referenced in this Mechatronics Re-Envisioned content.

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